HEALTH RISKS FROM EXPOSURE TO ENVIRONMENTAL TOBACCO SMOKE (ETS)

Carcinogenicity

Cardiovascular Effects

Respiratory Effects

- **Selection of dose-response models**
- **Determination of exposure parameters**
- **Procedures for the estimation of risk**
- **Expression of results**

RiskFocus

PM3006451507

Source: https://www.industrydocuments.ucsf.edu/docs/mmxj0001

HEALTH RISKS FROM EXPOSURE TO ENVIRONMENTAL TOBACCO SMOKE (ETS)

Expression of results

- **On an individual basis for risk related to extent of flying**
- **On a population basis for aggregate risk**
- **In comparison with other quantitative measures of risk**

RiskFocus

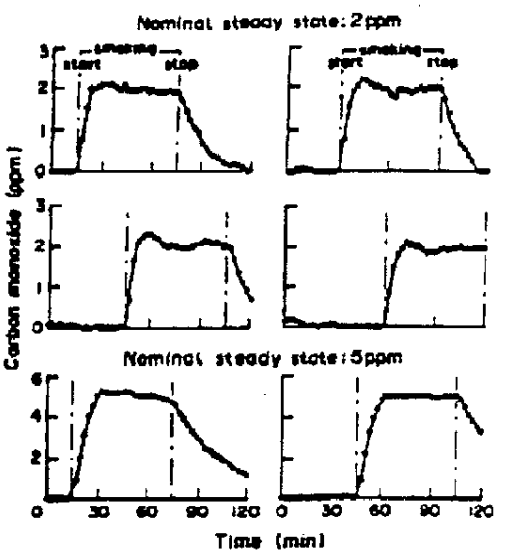
PM3006451508

Source: https://www.industrydocuments.ucsf.edu/docs/mmxj0001

HEALTH RISKS FROM EXPOSURE TO ENVIRONMENTAL TOBACCO SMOKE (ETS)

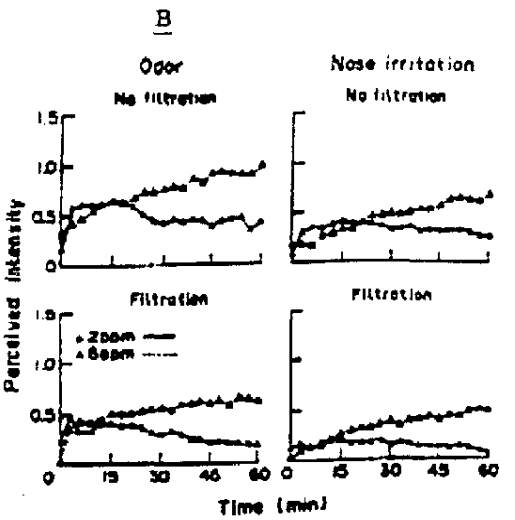
Carcinogenicity
Cardiovascular Effects
Respiratory Effects

A



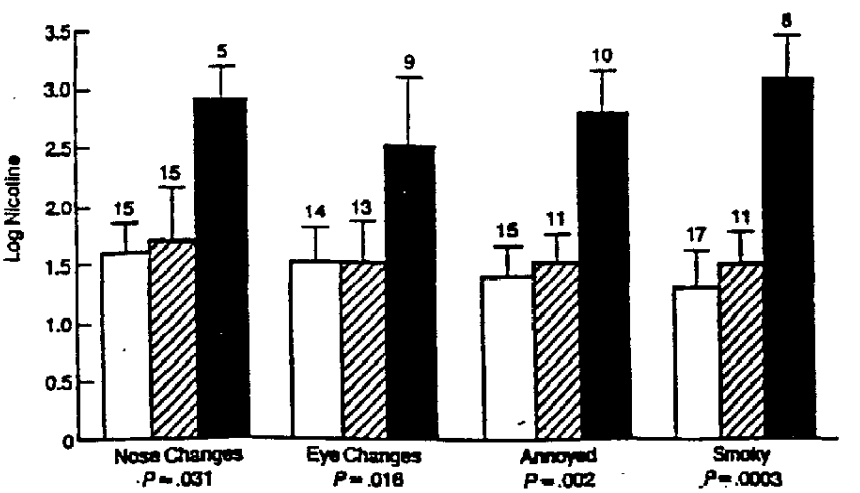
Concentration of carbon monoxide over time for the four different starting times of the 2-ppm condition and the two different starting times of the 5-ppm condition.

B



Perceived intensity of odor and nose irritation vs time.

C



Relationship of in-flight levels of air nicotine measured by personal monitoring pump to symptoms and perceptions during flight. Units are micrograms of nicotine per cubic meter (log transformed: Ln [nicotine + 1]). Numbers of subjects in each category are shown above bars representing 1 SE. Black bars indicate marked changes; striped bars, moderate changes; and white bars, no or mild changes. *P* values are one-tailed. See text for description of scoring system.

PM3006451509

Source: https://www.industrydocuments.ucsf.edu/docs/mmxj0001

HEALTH RISKS FROM EXPOSURE TO COSMIC RADIATION

- **Annual dose increment = ΔS/flight x number of flights**

- **Relation to change in health status for cancer, fetal retardation, and birth defects:**

$$Ht = (d_t C)(H_t)$$

- **These estimates for change in health status will not be combined with change in health from exposure to ETS.**

DiskFocus

PM3006451510

Source: https://www.industrydocuments.ucsf.edu/docs/mmxj0001

ISSUES OF CONCERN

- Use of average versus peak ambient concentrations to determine exposure
- Use of data on active smokers
- Populations of interest
  - Definition of frequency of flying
  - Definition of populations of interest for health effects
  - Susceptible populations:
    - Asthmatics
    - Cardiovascular disease
    - Children <1 year old)
    - Fetus
- Variation in health risk with aircraft type
- Variation in health risk with seat position
- Expression of risk

RiskFocus

PM3006451511

Source: https://www.industrydocuments.ucsf.edu/docs/mmxj0001